

ll

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/899,645	LI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Russell Kallis	1638	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 1/12/2005.
2. ☒ The allowed claim(s) is/are 5,7,8,10-12,17,21,22,24-30,37-39 renumbered 1-7, 11-19,8-10.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>2/4/2005</u>.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Saravitz on 4/4/2005.

The application has been amended as follows:

Claims 13 and 14 are canceled.

In the claims:

Claim 5 (Currently amended) A method for decreasing  $\beta$ -oxidation in a plant or plant part comprising introducing into [at least one cell of] said plant or plant part a nucleotide construct comprising a promoter operably linked to an acyl-CoA thioesterase nucleotide sequence, wherein said promoter drives expression in a plant cell, and said nucleotide sequence is selected from the group consisting of:

- (a) the nucleotide sequence set forth in SEQ ID NO: 1;
- (b) a nucleotide sequence which encodes a polypeptide comprising the amino acid sequence set forth in SEQ NO: 2;
- (c) a nucleotide sequence comprising at least 95% identity to the nucleotide sequence set forth in SEQ ID NO: 1, wherein said nucleotide sequence encodes a polypeptide having acyl-CoA thioesterase activity; and
- (d) the nucleotide sequence that is fully complementary to the nucleotide sequence of (a),

Art Unit: 1638

(b), or (c);

wherein the level of acyl-CoA thioesterase is increased and the level of oil or the level of at least one oil constituent is increased in said plant or at least one part of said plant, thereby decreasing  $\beta$ -oxidation in the plant, and wherein said part is selected from the group consisting of a fruit, a seed, and an embryo.

Claim 12 (Currently amended) The method of claim 5, wherein said oil constituent comprises a fatty acid selected from the group consisting of vernolic acid, petroselinic acid, sterculic acid, lesquerolic acid, densipolic acid, auricolic acid, cis-5-eicosenoic acid, cis-5-docosenoic acid, cis-5,13-docosdienoic acid, chaulmoogric acid, erucic acid, ricinoleic acid, labellenic acid, crepenynic acid and stearolic acid. [is selected from the group consisting of unusual fatty acids, unusual fatty acyl chains and triacylglycerols with at least one unusual fatty acyl chain.]

Claim 21 (Currently amended) A transformed plant [comprising in its genome] expressing a stably incorporated nucleotide construct in its genome comprising a promoter that drives expression in a plant operably linked to a nucleotide sequence encoding an acyl-CoA thioesterase, said nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence set forth in SEQ ID NO: 1;

(b) a nucleotide sequence comprising at least 95% identity to the nucleotide sequence set forth in SEQ ID NO: 1, wherein said nucleotide sequence encodes a polypeptide having acyl-CoA thioesterase activity; and

(c) the nucleotide sequence that is fully complementary to the nucleotide sequence of (a) or (b);

Art Unit: 1638

wherein the level of acyl-CoA thioesterase is [decreased or] increased in said plant or at least one part of said plant, said part selected from the group consisting of a fruit, a seed, and an embryo.

Claim 24 (Currently amended) The plant of claim 21, wherein said plant produces at least one unusual fatty acyl chain in its seeds, wherein said fatty acyl chain comprises a fatty acid selected from the group consisting of vernolic acid, petroselinic acid, sterculic acid, lesquerolic acid, densipolic acid, auricolic acid, *cis*-5-eicosenoic acid, *cis*-5-docosenoic acid, *cis*-5,13-docosdienoic acid, chaulmoogric acid, erucic acid, ricinoleic acid, labellenic acid, crepenynic acid and stearolic acid.

Claim 30 (Currently amended) A transformed plant cell [comprising in its genome] expressing a stably incorporated nucleotide construct in its genome comprising a promoter that drives expression in a plant operably linked to a nucleotide sequence encoding an acyl-CoA thioesterase, said nucleotide sequence selected from the group consisting of:

- (a) the nucleotide sequence set forth in SEQ ID NO: 1;
- (b) a nucleotide sequence comprising at least 95% identity to the nucleotide sequence set forth in SEQ ID NO: 1, wherein said nucleotide sequence encodes a polypeptide having acyl-CoA thioesterase activity; and
- (c) the nucleotide sequence that is fully complementary to the nucleotide sequence of (a) or (b);

wherein the level of acyl-CoA thioesterase is [decreased or] increased in said plant cell.

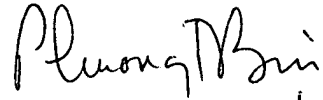
Art Unit: 1638

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (571) 272-0798. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on (571) 272-0804. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Russell Kallis PhD  
February 7, 2005

  
PHUONG T. BUI  
PRIMARY EXAMINER 2/10/05